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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/846,407	05/01/2001	Philip M. Walker	10005046-1	4008

7590 06/28/2005
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

CHO, HONG SOL

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary	Application No. 09/846,407	Applicant(s) WALKER ET AL.	
	Examiner Hong Cho	Art Unit 2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 03/17/2005.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Strahm et al (U.S 5732214), hereinafter referred to as Strahm.

Re claims 1, 15, and 24, Strahm discloses Control Element (CE, figure 2, element 206, *source agent*) sending the packet, encrypted in tunnel mode (*the tunnel being configured by said source agent*, paragraph [0032], lines 1-2) and Classifying Forwarding Element (CFE, figure 2, element 202, *an endpoint of a tunnel*) classifying the packet by checking if the packet is received from the same traffic stream or the security Association (SA) as previously received packets Classifying Forwarding Element (CFE, figure 2, element 202, *an endpoint of a tunnel*) (*authentication logic configured to receive packets sent from a source agent to an endpoint of a tunnel and to determine whether a SA of a packet received corresponds to said source agent*, paragraph [0032], lines 5-11).

Strahm discloses routing Internet Protocol security (IPsec) traffic based on the classification parameter (abstract, *making a routing decision for each authenticated packet that is constrained based on the SA of the authenticated packet*). Classification parameters include IPsec Security Parameter Index (SPI) information that is uniquely associated with a SA. Strahm discloses the CFE classifying the traffic it receives from the network for transmission to a destination, wherein this classifying involves load balancing and route optimization (paragraphs [0008] and [0009]). (*selecting a routing destination for each authenticated packet, and routing the packet based on said routing decision*, abstract, lines 1-5).

Re claim 2, Strahm discloses selecting the routing destination based on routing decision (paragraph [0009], lines 1-2).

Re claims 3, 16, and 25, Strahm discloses Decrypting Forwarding Element (DFE) decrypting the received packet using the encryption or keys included in the SA (*decapsulate received packets while SA of the packet is preserved*, paragraph [0036], lines 1-5) and forwarding the packet to its next stop (*contents of a payload of an authentication packet are routed to the selected routing destination*, paragraph [0031], lines 1-9).

Re claims 4 and 17, Strahm discloses processing Internet Protocol security (IPsec) traffic (abstract).

Re claim 5, Strahm discloses public IPsec protocol (paragraph [0002]).

Re claim 6, Strahm discloses communication with private network (paragraph [0027]).

Re claims 7, 8, 18 and 19, Strahm discloses routing or forwarding a packet to layer 3 device, router (paragraph [0031], lines 4-9).

Re claims 9, 10, 20 and 21, Strahm discloses forwarding a packet to layer 2 device, switch (paragraph [0031], lines 4-9).

Re claims 11 and 22, Strahm discloses a switch forwarding network traffic based on information included in the second layer of OSI networking model and discloses sending a packet in a tunnel mode through a virtual private network gateway.

Re claims 12 and 23, Strahm discloses a data layer link device forwarding network traffic based on information included in the second layer of OSI networking model (paragraph [0024], lines 9-12).

Re claims 13 and 14, Strahm discloses making routing decision based on Security Parameter Index (SPI, *authentication ID*) associated with a SA (*making routing decision without regard to the contents of a payload of the packet*, figure 1b; paragraph [0010], lines 1-7).

Re claims 26, 28 and 29, Strahm discloses receiving a packet at a tunnel endpoint, authenticating the packet (paragraph [0032], lines 5-11), preserving a SA of the packet as an authentication ID and based on the classification parameter (abstract), making routing decision of routing Internet Protocol security (IPsec) traffic by looking up the authentication ID in a table to determine a destination IP address to which the packet is to be routed (*making routing decision based on Security Parameter Index (SPI, authentication ID) associated with a SA* (paragraph [0010], lines 1-7).

Re claim 27, Strahm discloses making routing decision without regard to an internal destination address contained within a payload of the packet (packets are sent in transport mode to other network device that is not the packet's ultimate destination, paragraph [0019]).

Re claim 30, it is inherent in IP that a packet addressed to 255.255.255.255 is used to indicate that an IP packet is an IP broadcast (broadcasting a packet to all IP addresses found in the table that pertain to a given destination).

Response to Arguments

4. Applicant's arguments filed on 3/17/05 have been fully considered but they are not persuasive.

On page 12 the Applicant argues that Strahm's CFE does not comprise decision logic configured to make a routing decision for each authenticated packet that is constrained based on the security association of the authenticated packet. The Examiner respectfully disagrees. Strahm discloses the CFE classifying the traffic it receives from the network for transmission to a destination, wherein this classifying involves load balancing and route optimization that involves making a routing decision for each authenticated packet (paragraph [0009]). Therefore, the Examiner concludes that the rejection of claims 1-25 stands rejected.

Conclusion

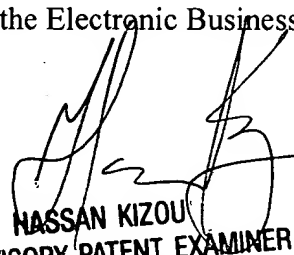
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- US 2001/0009025 to Ahonen discloses secure communication method in VPN
 - US 2002/0062344 to Ylonen et al. discloses secure tunneling of data between virtual routers

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

hc
Hong Cho
Patent Examiner
6/2/2005


HASSAN KIZOU
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